

[Derwent Week] 1999-05 [Patent No.] JP10307769 A [Patentee]MATY/MATSUSHITA GRAPHIC COMMUNICATION SYSTEMS

[Title]Electric mail transmission control method for facsimile involves adding control instruction in telegraphic message which is transmitted with control code to receiving terminal enabling it to perform...

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[Priority]

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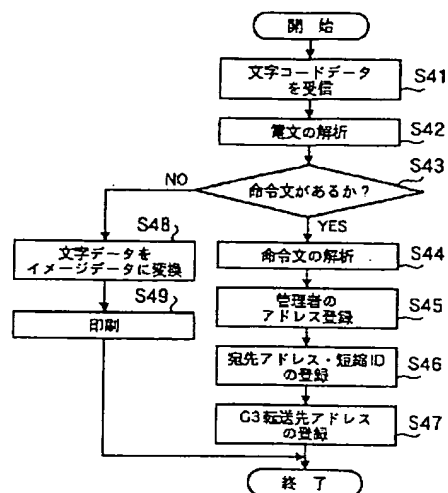
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[Abstract]

First Section: The method involves adding a predetermined unique character code along with control code in an electronic mail telegraphic message. The message is then transmitted to the receiving terminal. In a receiving terminal, the control code is extracted, analyzed and predetermined control action is performed, depending on the instruction.

ADVANTAGE: Enables control of receiver terminal easily. Improves operativity.

Reference No.1 (Japanese Laid-Open Patent publication Hei 10-307769)

[claims]

[claim 1]

An e-mail transmitting method comprising:
describing, in an e-mail, a control command including a predetermined unique character code at a transmitting apparatus;
transmitting the e-mail;
extracting the control command from the received e-mail at a receiving apparatus;
analyzing the control command; and
executing a predetermined control, based on the control command.

[claim 2]

The e-mail transmitting method according to claim 1, further
transmitting an e-mail in which a plurality of control commands are successively described at the transmitting apparatus,
successively executing a plurality of commands at the receiving apparatus.

[claim 3]

The e-mail transmitting method according to claim 2, wherein the control command includes an execution command sentence having a predetermined code, a controlled object line, and a command end sentence having the same code as the predetermined code.

[claim 4]

The e-mail transmitting method according to claims 1-3, further
describing a command for registering a destination as the control command at the transmitting apparatus,
transmitting an e-mail address of the destination, a facsimile telephone number of the destination, and an ID number corresponding to them,

registering the destination and the ID number corresponding to the destination when the control command is detected from the received e-mail at the receiving apparatus.

[claim 5]

The e-mail transmitting method according to claim 4, further describing, in the e-mail, a registered e-mail address corresponding the ID number, as an e-mail address of a destination or an e-mail address of a sender, when the receiving apparatus transmits an e-mail and when the ID number is input.

[claim 6]

The e-mail transmitting method according to claim 5, further describing, in the e-mail, an e-mail address downloaded based on the ID number, as the e-mail address of the destination or the e-mail address of the sender, when an apparatus other than the receiving apparatus transmits an e-mail, when the other apparatus downloads an e-mail address stored in a memory of the receiving apparatus and an ID number corresponding to the e-mail address before the transmission, and when the downloaded ID number is input at the transmission.

[claim 7]

The e-mail transmitting method according to claim 5 or 6, further registering an ID number corresponding to a plurality of e-mail addresses, inputting the ID number when transmitting an e-mail, and executing a broadcast transmission to the plurality of e-mail addresses.

[claim 8]

The e-mail transmitting method according to claims 5-7, wherein the transmitting apparatus, which transmits an e-mail based on a registered e-mail address, is a facsimile type e-mail apparatus,

the facsimile type e-mail apparatus comprises:

a scanner that scans a document and transforms the scanned document into image data;

a transformer that transforms the image data into a format of an e-mail;

a transmitter that adds, to the image data, an address of a destination and the address of the facsimile type e-mail apparatus, and transmits the e-mail.

[claim 9]

The e-mail transmitting method according to claim 8, wherein the facsimile type e-mail apparatus transforms the image data into the format of the e-mail, after the transmitted image data are coded with a code system utilized for a facsimile communication and the coded image data are stored in a memory.

[claim 10]

The e-mail transmitting method according to claim 5 or 6, wherein the transmitting apparatus, which transmits an e-mail based on a registered e-mail address, further comprises:

a transmitter configured to:

describe, in an e-mail, an e-mail address corresponding to a registered ID number by inputting the registered ID number;

add, to the e-mail, an e-mail address to which an error mail returns when an error is detected, the e-mail address distinct from the e-mail address of the transmitting apparatus; and

transmits the e-mail.

[Detailed description of the invention]

[0001]

[Industrial application]

This present invention relates to a facsimile type e-mail apparatus in which a user can transmit and receive image data in the same way as a facsimile communication.

[0002]

[Prior art]

Recently, facsimile apparatuses are used in many offices since the facsimile apparatuses can transmit and receive image data, based on easy operations. However, the facsimile apparatuses have some problems. For example, a sender can not know whether or not the transmitted image data reaches a person to whom the sender wants to transmit the image data. Everyone can read image data that a receiving facsimile apparatus received. Regarding the former problem, a receiving facsimile apparatus can return a communication result report to a transmitting facsimile apparatus. Thereby, the problem can be solved. On the other hands, regarding the latter problem, transmitting image data with an ID can be stored in a memory of the receiving facsimile apparatus. Thereby, it can prevent someone else from reading the image data. However, both ways substantially solve the problems since it is not so easy for users to operate the above both ways.

[0003]

On the contrary, the Internet is rapidly popularized over all the world. People using e-mails are also sharply increased in offices. An e-mail is transmitted and received at a personal computer (PC) or at a work station (WS) which individual person uses. Thereby, the above problems, which the facsimile apparatus has, does not occur to the e-mail.

[0004]

However, data, which are transmitted or received by e-mails, are mainly character codes, which are input by keyboards. Image data are not transmitted or received by the e-mails since it is not technically easy to transform the image data into formats which can be transmitted or received by the e-mails. In other words, an operation, for transmitting the image data with the e-mail, is complicated.

[0005]

A facsimile apparatus, to which the e-mail is applied, is provided to develop the operation. For example, it is Japanese Laid-Open patent publication Hei 02-172348. Figure 6 is an outline block diagram showing a prior art's

facsimile apparatus to which the e-mail is applied, as a prior art. 601 is a CPU which controls the facsimile apparatus. 602 is a ROM which stores a program. 603 is a RAM which is used for program data. 604 is a modem which is connected to a public telephone line. 605 is a printer which prints image data. 606 is a scanner which scans image data. 607 is a panel which inputs instructions for scanning image data, identification information of senders, and identification information of receiving people. 608 is a coder/decoder which codes and decodes image data. 609 is a computer I/F which is connected to a computer, transmits and receives an e-mail.

[0006]

Transmission and reception by the above facsimile apparatus is explained, as the following. First, an operator sets a document on the scanner 606. The operator inputs a telephone number of a destination and identification information of a sender from the panel 607, and then puts a start button. The scanner 606 scans image data, the coder/decoder 608 codes the image data, and the modem 604 transmits the image data to the destination via the public telephone line, based on a facsimile procedure. As an e-mail using character codes, a transmission result report returns to a terminal apparatus of the sender from the computer I/F 609 via a host computer.

[0007]

The reception by the facsimile apparatus is the following. First, a receiving person inputs user identification information from the panel 607. The user identification information is stored in the RAM 603. When the facsimile apparatus receives a facsimile document via the modem 604 and identification information is received with the facsimile document, the facsimile apparatus compares the received identification information with the stored user identification information. When the received identification information matches the stored user identification information, the facsimile apparatus notifies a terminal apparatus of

the user of receiving the facsimile document, using an e-mail via the computer I/F.
The receiving image data are printed by the printer 605.

[0008]

[Problems to be solved by the invention]

However, the above prior art has the following problems. A notice is transmitted to a terminal apparatus of a receiving person from a receiving facsimile apparatus. The notice indicates that the receiving facsimile apparatus received a facsimile document. However, a sending person can not know whether the facsimile document actually reached the receiving person. When neither the sending person nor the receiving person has the same facsimile apparatus having the above structure, the receiving facsimile apparatus also can not confirm the receiving person of the facsimile document during a facsimile process. In this case, the above notice can not be transmitted to the terminal apparatus of the receiving person from the receiving facsimile apparatus. In the other words, this above transmission of image data is performed to a facsimile apparatus, like an ordinary facsimile transmission. Therefore, this transmission does not have the same convenience as an e-mail transmission, in which a PC or a WS of the receiving person can be designated and a data transmission is thus performed freely.

[0009]

The invention solves the above problems which the prior art has. The invention relates to a facsimile type e-mail apparatus which can transmit image data to a individual person and which is easy to operate. The purpose of the invention is to provide an e-mail transmission control method specially suitable for controlling a receiving apparatus such as the facsimile type e-mail apparatus.

[0010]

[Means for solving the problems]

To achieve the above purpose, the present invention comprises, as a receiving apparatus, a apparatus (a facsimile type e-mail apparatus) which has

functions to transform image data, which is obtained from a document, into a format for an e-mail transmission, and to transmit the e-mail on a network. A transmitting terminal apparatus describes, in an e-mail, a control command including a predetermined unique character code, and transmits the e-mail. The receiving apparatus extracts the control command from the received e-mail at a receiving apparatus, analyzes the control command, and executes a predetermined control, based on the control command. By using the present invention, the transmitting terminal apparatus, such as a personal computer and a work station, transmits, to the receiving apparatus, the e-mail in which the control command is described. Thereby, it becomes easy to control the receiving apparatus from the transmitting apparatus. Specially, the present invention is suitable for controlling a receiving apparatus in which input means and display means are inadequate. For example, when the transmitting apparatus has an e-mail address table, and transmits an e-mail using the e-mail address table, it will make the operation more efficient.

[0011]

The invention of claim 1 describes, in an e-mail, a control command including a predetermined unique character code and transmits the e-mail at a transmitting apparatus. It also extracts the control command from the received e-mail, analyzes the control command, and executes a predetermined control, based on the control command at a receiving apparatus. Thereby, the transmitting apparatus can easily generate the control command, and the receiving apparatus can easily detect and analyze the control command. Thus, it will be easy to control the receiving apparatus.

[0012]

The invention of claim 2, in the e-mail transmitting method of claim 1, further transmits an e-mail in which a plurality of control commands are successively described at the transmitting apparatus, and successively executing a plurality of commands at the receiving apparatus. Thereby, it will be easy to

command, to the receiving apparatus, different types of controls and a type of successive controls.

[0013]

In the invention of claim 3, in the e-mail transmitting method of claim 2, the control command includes a execution command sentence having a predetermined code, a controlled object line, and a command end sentence having the same code as the predetermined code. Thereby, it is certainly detected whether the control command exists in the e-mail, the context of the control command, and the end of the control command. Thus, it will be possible to certainly control the receiving apparatus.

[0014]

In the invention of claim 4, in the e-mail transmitting method of claims 1-3, the transmitting apparatus further describes a command for registering a destination as the control command, transmits an e-mail address of the destination, a facsimile telephone number of the destination, and an ID number corresponding to them. The receiving apparatus registers the destination and the ID number corresponding to the destination when the control command is detected from the received e-mail. Thereby, the e-mail address and the ID number corresponding to the e-mail address can be stored in the memory of the receiving apparatus. Specially, this invention can make the operation more efficient, when a personal computer or a work station register large size of an address table in the receiving apparatus, such as a facsimile apparatus in which input means and display means are inadequacy.

[0015]

The invention of claim 5, in the e-mail transmitting method of claim 4, further describes, in the e-mail, a registered e-mail address corresponding the ID number, as an e-mail address of a destination or an e-mail address of a sender, when the receiving apparatus transmits an e-mail and the ID number is input. Thereby, when the receiving apparatus transmits an e-mail, the address of the

destination can be described in the e-mail, which is transmitted based on the registered address table, merely by inputting the ID number.

[0016]

The invention of claim 6, in the e-mail transmitting method of claim 5, further describes, in the e-mail, an e-mail address downloaded based on the ID number, as the e-mail address of the destination or the e-mail address of the sender, when an apparatus other than the receiving apparatus transmits an e-mail, when the other apparatus downloads an e-mail address stored in a memory of the receiving apparatus and an ID number corresponding to the e-mail address before the transmission, and when the downloaded ID number is input at the transmission. Thereby, when the apparatus other than the receiving apparatus transmits the e-mail, even though the apparatus does not have a memory, if the apparatus has a RAM having the same capacity as a size of the address table stored in the receiving apparatus, the apparatus can download the table from the receiving apparatus. Thus, like claim 5, the address of the destination can be described in the e-mail, which is transmitted based on the registered address table, merely by inputting the ID number.

[0017]

The invention of claim 7, in the e-mail transmitting method of claim 5 or 6, further registers an ID number corresponding to a plurality of e-mail addresses, inputs the ID number when transmitting an e-mail, and executes a broadcast transmission to the plurality of e-mail addresses. Thereby, when the receiving apparatus transmits an e-mail, the plurality of addresses of the destinations can be described in the e-mail, which is transmitted based on the registered address table, merely by inputting the ID number. Thus, the invention can make them easy both to register a list of e-mail addresses of destinations for broadcast, and to instruct the broadcast.

[0018]

In the invention of claim 8, in the e-mail transmitting method of claims 5-7, the transmitting apparatus, which transmits an e-mail based on a registered e-mail address, is a facsimile type e-mail apparatus. The facsimile type e-mail apparatus comprises a scanner that scans a document and transforms the scanned document into image data, a transformer that transforms the image data into a format of an e-mail, and a transmitter that adds, to the image data, an address of a destination and the address of the transmitting apparatus, and transmits the e-mail. In the invention of claim 9, in the e-mail transmitting method of claim 8, the facsimile type e-mail apparatus transforms the image data into the format of the e-mail, after the transmitted image data are coded with a code system utilized for a facsimile communication and the coded image data are stored in a memory. Thereby, image data can easily be transmitted from the facsimile type e-mail apparatus, which transmits the e-mail by the same operation as an ordinary facsimile apparatus, based on the address table having the registered e-mail address and the ID number corresponding to the registered e-mail address. Further, claim 9 can structure the facsimile type e-mail apparatus by using the same circuit as being utilized for scanner of the ordinary facsimile apparatus.

[0019]

In the invention of claim 10, in the e-mail transmitting method of claim 5 or 6, the transmitting apparatus, which transmits an e-mail based on a registered e-mail address, inputs a registered ID number. An e-mail address is described, in an e-mail, corresponding to the registered ID number. An e-mail address is also added to the e-mail. The e-mail address is one to which an error mail returns when an error is detected, and is distinct from the e-mail address of the transmitting apparatus. Then, the e-mail is transmitted. Thereby, when transmitting image data using the e-mail, a user can receive an error mail which is notified when an error occurs to the e-mail, not at the transmitting apparatus, but at the user's place.

[0020]

[Embodiment of the invention]

An embodiment of the present invention is explained, using figures, as the followings. Figure 1 is an outline block diagram showing the facsimile type e-mail apparatus which is adequately applied to the present invention, and which can transmit image data by an easy operation, like an ordinary facsimile apparatus. In figure 1, 1 is a CPU which controls the facsimile type e-mail apparatus. 2 is a ROM which stores a program. 3 is a RAM which is used for program data. 4 is an external memory, like a hard-disk, which stores codes image data. 5 is a format transformer which transforms the coded image data into an e-mail format. 6 is a scanner which scan image. 7 is a panel which a user instructs to scan the image or inputs an e-mail address of an destination. 8 is a coder/decoder which codes the scanned image data or decodes received image data. 9 is a LAN controller which is connected to a LAN, transmits and receives an e-mail via the Internet.

[0021]

Fig.2 is a flow chart, being used when the facsimile type e-mail apparatus transmits image data. First, at the step S1, a user sets a document on the scanner 6, inputs a destination (alphabets and digits) of an e-mail form the panel 7, and pushes the start button. Next, at the step S2, the document, which is set on the scanner 6, is input as image data, and at the step S3, the image data is compressed into a predetermined compression type, such as i.e. MR, MMR, JBIG, by compressor/decompressor 8 and is stored in external the memory 4. When documents consist of a plurality of pages, the plurality of pages are stored as one file in the external memory 4.

[0022]

Next, the stored image data is converted into character codes by the format converter 5. This process is performed, based on the Internet e-mail standard, as called MIME (Multipurpose Internet Mail Extensions). At the step S4, data is read from the external memory 4 by each page, and a TIFF (Tag Image File Format) header is added to the data. At the step S5, BASE 64 encoding is performed. BASE 64 is a coding method in which binary data are transformed into seven bit

text codes at a transmitting side, and in which they are transformed back to seven bit codes at a receiving side, similar to i.e. an uuencode, an ish. MIME adopts BASE 64. This is why the uuencode does not work well since unusual characters are often used in a header of an e-mail, but BASE 64 solves this problem by assigning different codes to such unusual characters.

[0023]

Next, at the step S6, a destination, a sender, and a transforming way into character codes are described in the BASE 64 encoded data, a header is added to the BASE 64 encoded data, and an e-mail data is generated. The mail address of the destination and the mail address of the sender are input by a keyboard, but can be input by a communication through a PW or a WS. The latter way is more easily to input them, and more efficiently to perform a transmission operation. This inputting way will be explained later. Next, at the step S7, the first page of the e-mail data starts to be transmitted as an e-mail form the LAM controller 9. When a plurality of pages of image data are stored in the external memory 4, a second page of image data is transformed into the e-mail format during transmitting a first page of the e-mail data. This process repeats until the final page. Then, the series of this procedure ends.

[0024]

In addition, in this embodiment, the facsimile type e-mail apparatus simultaneously performs the transmission of the e-mail and the generation of the subsequent e-mail data since it is connected with the network via the LAN controller 9. However, when the facsimile type e-mail apparatus is connected with a public telephone line, it transmits the e-mail after all pages of the e-mail data are generated.

[0025]

As explained above, the facsimile type e-mail apparatus can easily transmit image data as an e-mail to any apparatus, in which a e-mail program supporting MIME is installed. Thus, the facsimile type e-mail apparatus can transmit image

data directly to PC or WS of an individual person. Since people other than the person, to whom the image data is transmitted, can not see the transmitted image data, the facsimile type e-mail apparatus can has the same characters as an e-mail communication, such as immediateness and secrecy.

[0026]

When the above facsimile type e-mail apparatus receives or outputs an e-mail, a process for the reception or the output is reverse. In the other words, first, the LAN controller 9 receives image data of the e-mail, and the image data is stored in the external memory 4. Next, the format reverse transformer 10 transforms the image data of the e-mail into a format of facsimile data, based on BASE. The coder/decoder 8 decodes the transformed image data, and the decoded image data is stored in the external memory 4. After that, the image data is printed by the printer 11.

[0027]

Next, a procedure is explained, the procedure is for registering a mail address of a destination and a mail address of a sender into the facsimile type e-mail apparatus. It is possible to input the mail address of the destination and the mail address of the sender, directly by utilizing a keyboard, but it is also possible to input the mail address of the destination and the mail address of the sender, form PW or WS by utilizing an e-mail communication. The latter way is easier to input them, and makes an operation for transmitting the e-mail more efficient.

[0028]

Fig.3 shows a sample of a format utilized for registration of the mail address of the destination and the mail address of the sender when the mail address of the destination and the mail address of the sender are registered by an e-mail. The e-mail is generally composed of a head 31 and a main context 32. @ mail list of the main context 32 is a control command for commanding to register a mail address which is described following the control command, a corresponding abbreviated ID number to the mail address, and an address to which an error mail

returns. 'yamada@xx.yy.zz', 'toyoda@xx.yy.zz' show e-mail addresses of
destiantion. 'taro', 'kiyo' show corresponding abbreviated ID numbers
corresponding to the e-mail addresses, 'aaa@bb.cc.dd' shows an address for an
error mail when an error occurs. G1 is a control command for commanding
broadcast mail to three destinations of 'tanaka@xx.yy.zz', 'yamada@xx.yy.zz',
and 'yoshida@xx.yy.zz'. A abbreviated ID number is designated for the three mail
addresses. @from shows an e-mail address of a sender of an Internet facsimile,
and an e-mail address of a manager is usually registered as the e-mail address of
the sender. The e-mail address of the manager is utilized as an address to which an
error mail returns. Thus, when the address of the destination is registered, and
when the address, to which the error mail returns, is the e-mail address of the
manager, the address, to which the error mail returns, is not needed to register.
When the address, to which the error mail returns, is not needed to register, the
error mail returns to 'mmm@xx.yy.zz'. @G3recv is a control command for
commanding to transform received facsimile data in to an Internet format, and to
transmit the transformed facsimile data to the e-mail address 'nnn@xx.yy.zz' of a
predetermined PC or WS when the facsimile type e-mail apparatus receives
facsimile data not through the controller 9 but through a public telephone line.
Similarly, for example, it is possible to have a control command, such as @rcv.
When facsimile data is received, a notification of the receiving facsimile data may
be transmitted to a predetermined terminal device with an e-mail, by utilizing the
control command @rcv. On the other hand, for example, it is also possible to have
a control command, such as @send. When an e-mail or facsimile data is received,
the received e-mail or the received facsimile data may be transmitted to another
facsimile apparatus through the public telephone line, by utilizing the control
command @send. In this case, a facsimile number of the destination is registered,
instead of the e-mail address.

[0029]

In addition, in the above embodiment, the control command for indicating the registration is described in the context of the e-mail, but the control command can be described in the header of the e-mail by adding a unique code, which indicates the control command and is usually not described in the e-mail, to the control command. For example, a code such as "Subject : !!\$" may be described. Since a title is generally described after "Subject :", a reception can judge whether a received e-mail is an unusual e-mail for the control command, by detecting the "!!\$" after "Subject:". Codes or descriptions of the control command can be modified.

[0030]

Next, a registration method is explained by using a flow chart of Fig. 4. The registration method is performed by the facsimile type e-mail apparatus when the above e-mail for a registering indication is received. First, at the step S 42, when the LAN controller 9 receives character codes of an e-mail, a main context of the e-mail is analyzed. Next, it is judged whether the main context of the e-mail includes descriptions indicating commands. When a command exists in the main context, a character line following the command is analyzed at the step S 44. Next, at the step S 45, a mail address of the manager is registered in the external memory 4. At the step S 46, a mail address of a destination, an abbreviated ID number corresponding to the mail address, and a mail address, to which an error mail returns, are registered in the external memory 4. At the step 47, a mail address, to which a G3 fax is forwarded, is registered in the external memory 4. On the other hand, when no command exists, character data is transformed into image data at the step 48. At the step 49, the image data is printed.

[0031]

By using the above method, a user can easily input a list of e-mail addresses of destinations. The e-mail, in which the control command is described, does not always require to be received directly by the facsimile type e-mail apparatus. For example, a mail server on a network can receive the e-mail, in

which the control command is described. The mail server stores the e-mail as an address table in a memory. When the facsimile type e-mail apparatus turns ON or an e-mail application starts in the facsimile type e-mail apparatus, the facsimile type e-mail apparatus can download the above e-mail. By using this way, the facsimile type e-mail apparatus does not need to prepare a memory having a huge capacity.

[0032]

The procedure for the registration was explained above. By using this procedure, procedures other than for the above registration of the e-mail address also can be performed by the receiving apparatus, without using a special protocol between a PC or a WS and an instructing apparatus.

[0033]

A process for transmitting image data is explained by using a flow chart of Fig.5. The process is one for transmitting image data, based on e-mail address table which is registered by the above process. First, at the step S51, a user pushes a destination list button of the panel 7. At the step S52, the user inputs a ID number. At the step S53, a mail address of a sender corresponding to the ID number is read form the mail address table which is previously registered. The mail address of the sender is displayed on the display 7. Next, at the step S54, when the user pushes the start button, image data input form the scanner 6 is transformed, and is transmitted (the step S55-S57). The detail of this transforming process has already been explained by using Fig.2. In addition, the address of the sender, set in the e-mail for transmitting image data, is an address to which an error mail returns. This address is registered in the mail address table in which mail addresses are previously registered. When the address, to which an error mail returns, is not registered in the mail address table, a mail address of the manager will be set in the e-mail. The mail address of the manager is set as a default value. Thus, the error mail will return to at least a terminal device. Further, when a mail address of the sender is input when transmitting the e-mail, the mail address has

priority to be described in the e-mail. A way for inputting the address of the sender when transmitting the e-mail, is that a user puts a sender button in the panel 7 and inputs a sender ID, a pre-registered table for addresses of senders is displayed, and then the user designates one address of a sender from the pre-registered table. This way is easy to input the address of the sender.

[0034]

[Effect of the invention]

As explained above, based on the invention of claim 1, the transmitting apparatus can easily generate a control command, and the receiving apparatus can detect and analyze the control command. Thus, it will be easy to control the receiving apparatus. Based on the invention of claim 2, it will be easy to command, to the receiving apparatus, different types of controls and a type of successive controls. Based on the invention of claim 3, it is certainly detected whether the control command exists in the e-mail, the context of the control command, and the end of the control command. Thus, it will be possible to certainly control the receiving apparatus. Based on the invention of claim 4, a plurality of e-mail addresses and the ID numbers corresponding to the e-mail addresses can be stored in the memory of the receiving apparatus. Specially, this invention can make the operation more efficient, when a personal computer or a work station register large size of an address table in the receiving apparatus, such as a facsimile apparatus in which input means and display means are inadequacy. Based on the invention of claim 5, when the receiving apparatus transmits an e-mail, the address of the destination can be described in the e-mail, which is transmitted based on the registered address table, merely by inputting the ID number. Based on the invention of claim 6, when the apparatus other than the receiving apparatus transmits the e-mail, even though the apparatus does not have a memory, if the apparatus has a RAM having the same capacity as a size of the address table stored in the receiving apparatus, the apparatus can download the table from the receiving apparatus. Thus, like claim 5, the address of the

destination can be described in the e-mail, which is transmitted based on the registered address table, merely by inputting the ID number. Based on the invention of claim 7, when the receiving apparatus transmits an e-mail, the plurality of addresses of the destinations can be described in the e-mail, which is transmitted based on the registered address table, merely by inputting the ID number. Thus, the invention can make them easy both to register a list of e-mail addresses of destinations for broadcast, and to instruct the broadcast. Based on the invention of claim 8 and claim 9, image data can easily be transmitted from the facsimile type e-mail apparatus, which transmits the e-mail by the same operation as an ordinary facsimile apparatus, based on the address table having the registered e-mail address and the ID number corresponding to the registered e-mail address. Further, claim 9 can structure the facsimile type e-mail apparatus by using the same circuit as being utilized for scanner of the ordinary facsimile apparatus. Based on the invention of claim 10, when image data is transmitted using an e-mail, a user can receive an error mail, which is transmitted when an error occurs in the e-mail, not at the e-mail transmitting apparatus, but at the user's place.

[Descriptions of the figures]

[Fig.1]

an outline block diagram showing the facsimile type e-mail apparatus which is applied to the present invention

[Fig.2]

a flow chart used when image data are transformed into a format for an e-mail transmission and are transmitted.

[Fig.3]

a format sample of an e-mail utilized for indicating registration of mail addresses.

[Fig.4]

a flow chart showing a registration process when an e-mail for a registration indication is received.

[Fig.5]

a flow showing a transmission process based on an e-mail address table.

[Fig.6]

an outline block diagram showing a prior art's facsimile apparatus to which the e-mail is applied.

[Descriptions of the legends]

- 4 external memory
- 5 format transformer
- 9 LAN controller